

Mathematics 1090-03

Fall, 2017

- Instructor:** Kelly A. MacArthur
- Class Time and Place:** 10:45 a.m. - 12:05 p.m.
Tuesdays and Thursdays
in JTB 140
- Office Hours:** Mondays 11:00 a.m. – 12:00 p.m., Tuesdays 3:30 – 4:30 p.m., Thursdays 8:30 - 9:30 a.m. or by appointment. We also have extra review sessions, to be scheduled after class starts.
- Office Location:** JWB 218
- E-mail address:** macarthur@math.utah.edu
- Class Web Page:** <http://www.math.utah.edu/~macarthur> (go to Current Teaching and our class)
- Text:** (1) *Business Algebra*, 2nd edition, published by Kendall Hunt, ISBN 9781465240989
Please go to <http://www.math.utah.edu/schedule/bookInfo/index.html> and look at the Book Purchasing Information document for Math1090 to have accurate information. Do NOT purchase this book before you read the Book Purchasing Document.
(2) My class notes which will be posted on the class web page. You will need to print those out and bring them to class, because I'll refer to them regularly. (Please note: You can print them in the Math Computer Lab for no cost.)
- Course Information:** Math1090, College Algebra for Business and Social Sciences is a 3-credit semester course.
- Prerequisite:** At least a C grade in Math1010 (Intermediate Algebra) OR Math1050 (College Algebra) OR in Math1080 (Precalculus) OR an Accuplacer score of 60 on the College Level Math (CLM) test OR at least an ACT Math score of 23 OR at least SAT Math score of 540.
- Course Description:** Functions and graphs, polynomial and rational functions, matrices, Gaussian elimination, exponential and logarithmic functions, growth, periodic and continuously compounded interest, arithmetic and geometric sequences, annuities and loans.
- Expected Learning Outcomes:** Upon successful completion of this course, a student should be able to:
1. Graph and analyze quadratic, exponential and logarithmic functions; solve quadratic, exponential and logarithmic equations.
 2. Understand what a mathematical function is and know how to use linear, quadratic, logarithmic and exponential functions to model real world examples.

3. Know how to solve a system of linear or quadratic equations that arise in business applications.
4. Find solutions to linear programming problems, to maximize a function over a geometric region.
5. Perform simple matrix algebra computations.
6. Use matrices to solve systems of linear equations.
7. Understand what an inverse function is and be able to find the inverse function, when it exists.
8. Distinguish between simple and compound interest situations.
9. Calculate future and present value of annuities, and know when to use which formula for the life application.
10. Compute an amortization schedule and loan payments, such as automobile or mortgage payments.

Tutoring Lab:

T. Benny Rushing Mathematics Student Center (adjacent to JWB and LCB), Room 155

M - Th 8 a.m. - 8 p.m. and F 8 a.m. - 6 p.m.

(opens Wednesday) (closed Saturdays, Sundays and holidays)

They are also offering group tutoring sessions. If you're interested, inquire at the Tutoring Lab. <http://www.math.utah.edu/ugrad/tutoring.html>

Private Tutoring:

University Tutoring Services, 330 SSB

(they offer inexpensive tutoring). There is also a list of tutors at the Math Department office in JWB233.

Computer Lab:

also in the T. Benny Rushing Mathematics Student Center, Room 155C.

M - Th 8 a.m. - 8 p.m. and F 8 a.m.- 6 p.m.

Link to computer lab is <http://www.math.utah.edu/ugrad/lab.html>

Grading:

The grades will be calculated as follows:

Weekly Quizzes 15%

Weekly Homework 10%

Midterm 20%

Midterm 20%

Midterm 10%

Final Exam 25%

(Note: There will be 3 midterms. Your lowest midterm score will count for 10% of your grade and your top two midterm scores will each count for 20% of your final grade.)

Weekly Quizzes:

There will be a 20-minute quiz in class every Thursday. I reserve the right to start the quiz at any time during the Thursday class period. The quiz will cover the material covered in the previous two class times. Quiz questions will be taken from textbook examples, class examples, assigned problems or problems very much like those problems. All quizzes will be group quizzes and I'll assign the groups. There will be no make-up quizzes. No exceptions. If you're late to class or miss class and thus miss the quiz for any reason whatsoever, you will have to use that as one of your dropped quiz scores. There will be roughly 14 quizzes. **I will drop the lowest three quiz scores.**

- Weekly Homework:** There will be a total of 30 or 31 homework assignments by sections, including exam weeks, using the online homework software accompanying the e-book. These homework assignments will cover the material presented in class that week. The homework assignments will open on Tuesday mornings and close the following Tuesdays right before midnight. **Your lowest six homework section scores will be dropped.** Because the lowest six sections of homework are dropped, there will be no personal extensions made to the assignment due dates, for any reasons at all. By that I mean that the entire class will have the same deadlines. No exceptions. This means you should NOT wait until the last minute or day to complete the assignments.
- Midterms:** There will be three one-hour midterm exams throughout the semester, and the dates are fixed, according to the course outline that is on our class web page. They will be during normal class time, in our usual classroom.
- Final Exam:** The final exam for this class is comprehensive and it will occur on Friday, December 15th, from 3:30 to 5:30 p.m. in a classroom to be announced later. *(Note: This is a departmental final exam and the date and time CANNOT be changed. This is the ONLY day/time you can take the final exam, so please make your flight home for winter break after this final exam. If you have a scheduling conflict with another final exam you have to take, you have until December 1st to let me know. If you tell me about the final exam scheduling conflict by December 1st, and we verify it, then we will reschedule this final exam. If you tell us later than December 1st, then you'll have to have your other final exam rescheduled.)*
- Online Grades:** I will put your grades online on Canvas. You can get there easily from the main University of Utah website. To log in, you use the same student id and password that you use for Campus Information System. I do my best to update the grades on a regular basis and keep everything accurate. However, I would advise you to check your grades often to make sure there were no data entry mistakes. I'm always happy to correct any mistakes I've made. You just need to let me know about them.
- Calculators:** I will only allow scientific calculators (no graphing or programmable calculators will be allowed ever) on all exams/quizzes. This will be discussed more in class.
- Grading Scale:** Although I'm not philosophically opposed to curving grades, I find it's rarely necessary. The grade scale will be the usual:
A (93-100), A- (90-92), B+ (87-89), B (83-86), B- (80-82), C+ (77-79), C (73-76), C- (70-72), D+ (67-69), D (63-66), D- (60-62), E (0-59).
If I do need to curve the grades, I will simply shift everything down by a few points (whatever is necessary).
- ADA Statement:** The University of Utah seeks to provide equal access to its programs, services and activities for people with disabilities. If you will need

accommodations in the class, reasonable prior notice needs to be given to the Center for Disability and Access (CDA), 162 Olpin Union Building, 581-5020 (V/TDD). CDA will work with you and me to make arrangements for accommodations. All information in this course can be made available in alternative format with prior notification to CDA.

Student Responsibilities: All students are expected to maintain professional behavior in the classroom setting, according to the Student Code, spelled out in the Student Handbook. You have specific rights in the classroom as detailed in Article III of the Code. The Code also specifies proscribed conduct (Article XI) that involves cheating on tests, collusion, fraud, theft, etc. Students should read the Code carefully and know you are responsible for the content. According to Faculty Rules and Regulations, it is the faculty responsibility to enforce responsible classroom behaviors, beginning with verbal warnings and progressing to dismissal from class and a failing grade. Students have the right to appeal such action to the Student Behavior Committee. <http://regulations.utah.edu/academics/6-400.php>

Teaching Philosophy: I believe strongly that mathematics, at its core, is the art/experience/science of problem solving and pattern recognition. It is inherently a creative process, one to be struggled with, repeated, and enjoyed. The process requires imagination, persistence, courage, processing time, and ultimately produces experiential, mathematical skill. It is from this perspective that I teach. I'm not as concerned with the destination, i.e. the answer, as I am about the journey of problem-solving and mathematical exploration since it is exactly the entirety of the journey that creates the answer. And, self-confidence and mastery are then natural by-products of the mathematical journey.

Classroom Social Equity: I strive to be ethical, kind, fair, inclusive and respectful in my classroom and expect students to behave likewise. In this regard, I have these requests of you, my student:

1. Please inform me of whichever pronouns you prefer me to use for you. I will put great effort into honoring your request and ask that you correct me if I do happen to make a mistake.
2. Please do tell me, discreetly, if you have any sort of anxiety disorder, TBI, PTSD, C-PTSD, or any other challenge that would cause psychological harm to you by me calling on you in class. I want students to feel a little uncomfortable and stretched during class, while working on problems as a large group, but I definitely don't want to cause any human being harm. So, please just tell me if that is the case for you and I will confidentially accommodate your request.
3. If your preferred name is different than your legal first name (*the preferred name you chose does indeed show up in CIS on my roll sheet, but not yet in Canvas*), please log into Canvas and go to Account (on far left)-->Settings and change your Display Name to be the name you prefer to be addressed by. This will help me greatly to know students' names, and to address you correctly when responding to Canvas quiz comments.

Additional Policies: Due to experience, I have decided to make some additional policies regarding my classroom administration and grading.

- I do NOT allow the use of laptop computers in my classroom, in order to minimize student distractions. At this point, it's almost impossible to take notes for a math class on a laptop in real time. Thus, it is unnecessary in class. If you are using a tablet or ipad or some similar device to take notes and the screen lies parallel to your desk, that is totally fine.
- There will be no retakes of exams, for any reason.
- You may take an alternate exam if you talk to me about it first and explain the emergent, extenuating circumstances that make it necessary. It is 100% your responsibility to communicate with me as soon as is possible, before the exam occurs (or as soon as possible). Talking to me *after* the problem will be sufficient reason for me to allow you to get a zero on that test. I reserve the right to make alternate exams more difficult than the scheduled exam.
- I will kindly demand respectful behavior in my classroom. Examples of disrespect include, but are not limited to, reading a newspaper or magazine in class, social chatting with your friend in class, text-messaging during class, excessive use of your cell phone, or cuddling with your girl/boyfriend in class. If you choose to be disrespectful with distracting behavior during our class, please keep in mind that you put me in a position of choosing between protecting/taking a stand for you OR for the other students or myself whom you are disrupting. I can guarantee I will choose to stand for the students who are there to learn without disruptions and I will thus take action to terminate your distracting behavior, and that action may not be desirable for you.
- There will be no cursing nor negative ranting (for example, “math sucks”) on any written work turned in. The penalty for such things on your written work will be a zero score on that assignment or test.
- You need to have a valid email address registered with Campus Information System. I will regularly send emails to the class and will hold you accountable for receiving that information. If you have troubles receiving my emails, you can (1) check to make sure your email address at Campus Information System is correct, (2) make sure my emails are not going directly to your junk mail folder, or (3) contact the webmaster at Campus Information System. Also, be sure to turn on your notifications in Canvas so you are alerted to announcements I make in Canvas.
- If you have crisis-level extenuating circumstances which affect your class performance and you need guidance/advice/flexibility, it is completely your responsibility to communicate with me as soon as possible so I can help you in some manner, which I'm truly happy to do. The longer you wait to communicate with me, the less I can and am willing to do to help.
- If you have questions about any exam/quiz/homework grade, or you want to appeal the grading of the exam/quiz/homework, you must bring it to me within one week of the exam/quiz/homework. I'm happy to look over your appeal and/or questions and give my feedback in order to benefit your learning. But, it must be done in this timeframe of a week from when I hand back the exam/quiz/homework.
- Please make sure you do your best throughout the semester, knowing the grading scheme and what's expected of you, and come talk to me if you need further study strategies. I will be happy to brainstorm

ideas to help you maximize your study strategies and improve your mathematical understanding. I will offer an extra credit question on every midterm and final exam, to help make up for arithmetic mistakes. But, I will not offer any additional extra credit at the end of the semester or any other way for you to improve your grade at that time. No exceptions. Please respect this and do not ask for special favors or extra credit when you realize you don't like your grade. Most likely, I just won't respond to such emails or questions in person.

- If you cheat on any homework, project, quiz or exam, I will automatically give you a zero for that grade. Depending on the severity of the cheating, I may decide to fail you from the class. Please note that the use (or even just pulling it out of your pocket) of a cell phone or any other electronic device is considered cheating and cause for receiving an automatic zero on any in-class quiz or exam. Also, if you exhibit any other behaviors that are unethical, like offering me a bribe to give you a better grade (even if you later claim you were joking), I will report your behavior to the Dean of Students.

I reserve the right to change my policies stated in this syllabus at some point in the semester. If I do make a change to a policy, I will announce it in class and send the change in email or post an Announcement on Canvas.